

A PROGRAM OF WORK

for contributing to

EXTENSION WORK IN FARM MANAGEMENT AND RELATED FIELDS

(The Economics of Agricultural Production and Land Use)

in the 11 Western States.

by

Virgil Gilman

Agricultural Economics Section

Preliminary X

INTRODUCTORY NOTE

This statement is one man's informal attempt to describe the objectives, the subject matter, and the procedure involved in his work with Department and State people,

It is chiefly concerned with subject matter and its use. The range of subject matter is indicated by the term "farm management and related fields." To be more exact, this term is used to mean "the economics of agricultural production and land use." This includes the economic aspects of conservation and agricultural adjustment and the economic aspects of tenure and other institutional relationships of people to land.

Some discussion of organization and procedure is included to indicate the character of work done in obtaining and developing subject matter, in making it available, and in assisting with its utilization.

Attention is purposely focused upon only a small segment of the total educational job. This is done by concentrating discussion upon the interstate, regional, and national aspects of subject matter and procedure.

In so doing it is hoped to emphasize things that will complement the interests and activities of fellow workers in the Department and in the States. In this connection the writer is deeply indebted to these fellow workers for much of the material he has used in this statement.

Every element in this program is intended to be helpfully related to these workers' interests and activities. At the same time this statement is not formulated in terms of a State program, and it is not intended as a suggestion along this line. It is hoped, of course, that State workers will find it of some interest, for many ideas are borrowed from their writings and from years of pleasant profitable experience in working with them.

Although dealing with only a part of the broad subject of agricultural economics, this statement does, nevertheless, outline a range of subject matter and functions to all of which it is difficult to give timely, competent attention. From a professional standpoint this is both challenging and discouraging.

The statement is labeled preliminary partly because it is rough and incomplete in many spots and partly because a program of work in extension education must necessarily be subject to review, reappraisal, and adjustment. However, it is hoped that as a general outline it will serve the simple purpose of providing a framework within which more intensive, more precise work can be discussed and carried out.

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(The Economics of Agricultural Production and Land Use)

in the 11 Western States

This work is part of the program of cooperative extension work carried on cooperatively by the United States Department of Agriculture and the individual States.

## OBJECTIVES

The general educational objective is to contribute to a program of educational assistance to farm people, supplying them with the best up-to-date factual information and aiding them in their study and discussion of problems, in order that they may better understand these problems, wisely consider alternative solutions, and arrive at well-considered judgments useful as a basis for taking successful action.

The specific educational objective (within the framework of the general objective) is to assist in providing farmers, ranchers, and other people living upon the land in the West with educational assistance that will help them improve the efficiency of farm and ranch organization and management, make necessary adjustments in production, develop better land use, and achieve satisfactory, stable levels of income.

The operating objectives are four in number.

1. To assist State extension leaders in the 11 Western States in developing and carrying on educational activities in farm management and related fields. Through personal contacts, correspondence, and group meetings, these leaders are supplied with up-to-date professional materials on farm management, land use, and other subjects pertinent to their work in the West. Information and assistance on practical, up-to-date educational methods are stressed. Materials for their use are currently selected or prepared from national, regional, and interstate sources. Individual State plans of work are reviewed and suggestions for improvement are made.

2. To work with Department of Agriculture bureaus on educational activities in farm management and related fields that are of mutual interest to the Department and to the Western States. This involves the exchange of information on significant trends in western agriculture, both in Washington and in the field; cooperative work with bureau personnel in the identification and appraisal of economic problems; and consultation and joint effort in making subject matter from the bureaus available for use in cooperative educational programs.

3. To help both State leaders and Department bureaus with the interstate aspects of educational programs. An outstanding feature of western agriculture is the way many farm management, production adjustment, and land use problems extend across State lines. The exchange of information on these problems and

on educational methods is facilitated as between States and as between States and Department bureaus. Frequently joint action on interstate problems permits the saving of both time and money.

4. To make more efficient use of research information. Western agriculture and western resources are of many types. Much specialized scientific knowledge is needed as a basis for keeping abreast of farm problems and for use in educational programs. Close contacts are maintained with Federal and State research people in order to be fully informed regarding research work in progress and to make use of new subject matter materials as quickly as they are available. Frequently materials are briefed or summarized for Extension use. Problems encountered for which research is needed are relayed to research workers. These workers are often advised with, regarding the preparation and use of their findings.

#### FIELDS OF WORK

In order to accomplish the foregoing objectives, subject matter work at the Federal level is organized by subject-matter fields.

These fields are based upon the character of agriculture in the West, the types of agricultural problems found there, the interest of farm and ranch people in these problems, and their need for educational assistance with them.

In outlining these fields a number of sources of information have been drawn upon. These include many research studies of State and Federal agencies; the annual plans of work and annual reports of the State extension economists in the West; the research program of the BAE; the Noble Clark Committee report; the Kepner Committee report; the Extension workers' committee report, Preview of Tomorrow's Educational Problems in Agricultural Economics and Rural Sociology; the Western States extension economists' report at Fort Collins; personal travel and work in western areas; and correspondence and discussion with professional workers in Federal and State agencies in the West who have an interest in education.

The fields outlined take into account the main subject-matter features of current extension programs and in addition list a number of lines of work that appear promising in view of anticipated agricultural problems, research now under way, or previous experience.

The fields are not mutually exclusive and independent; many interconnections and interdependencies exist. But it is felt that each listed field is distinct enough to provide a practical basis for selecting, assembling, and preparing material on subject matter and educational methods.

Taken altogether, the listed fields indicate the scope and content of a program of subject-matter work organized at the Federal level to accomplish the objectives outlined.

This program is region-wide. The scope and content of each field is designed to supplement subject matter readily available to an individual State. Each field necessarily includes a wide range of material -- interstate, regional, and national. The reasons for this are obvious. Agriculture varies greatly

from section to section of the West, and in many instances problems extend across State lines. In each subject-matter field each State has certain agricultural problems and subject-matter interests that are peculiar to itself; others that are interstate with a neighboring State or two; some that are in common with all States of the West; and others that are in common with all States in the Nation. Consequently, information on subject matter and educational methods from outside the State is useful in supplementing resources available within the State.

The program is comprehensive in that it includes nine important fields and a large number of subfields or individual lines of work. This is partly because a good many lines of work are being carried on somewhere in the West. Each State has a more or less distinct combination of agricultural problems. For this and other reasons individual State programs vary considerably from State to State. Of course no one State carries on every line of work found somewhere in the West. For any individual State to do so would be unwise. But in carrying on a Federal program of subject-matter assistance useful to all States, all important lines of work under way anywhere within the region must be taken into account.

The program is comprehensive for another reason. It attempts to be foresighted by including, as indicated above, fields and lines of work that appear promising for the future even though they may not be prominent in current State programs.

The fields and lines of work are outlined below. This outline is not intended as a model. It is simply one way of systematically organizing information on subject matter and methods at the Federal level. Neither is it intended as a model for individual States to adopt. But it is designed to provide a basis for joint work on problems of mutual interest in improving the organization and utilization of subject matter at State, interstate, regional, and national levels.

The outline is in preliminary skeleton form. Only enough discussion is included to make clear what is meant by the field and subfield headings. Some subfields are listed to indicate their importance, even though no work is under way and even though materials are not available. Since this outline is limited to a bird's-eye view of fields, methods are not discussed fully.

Finally, since all lines of work are not of equal importance in a given situation it is not expected that they will all be given equal emphasis. Careful selection and ranking of lines of work for primary and secondary emphasis in relation to specific situations is essential in program construction. More will be said about this in the later section on Procedure and Cooperation. The fields and lines of work listed below are not ranked in any order of relative importance.

#### Farm and Ranch Management

This field is concerned with the organization and operation of farms and ranches as individual producing units. Operating set-ups in the West are of many diverse types, including irrigated farms, dry-land farms, and range live-stock outfits.

Recent rapid changes in mechanization, size of operations, volume of output, and income raise problems of coordination and balance within the farm business.

One educational problem is that of assisting farmers and ranchers in understanding why some farm and ranch set-ups pay better than others. Another is to help them improve their own organization and management. Seven desirable lines of educational work are listed below.

Information on trends in numbers, types, sizes, and income status of operating units.-- This is needed for both State and interstate areas. States are making use of census data. BAE is working on a more precise classification of farms and ranches.

Typical farm and ranch set-ups illustrating good organization and operation.-- These are representative example farm set-ups illustrating desirable adjustments for farms in a particular problem situation. These farm set-ups may or may not be "demonstration" farms. Frequently they are not. In some instances they are actual farms; in other instances they are average or modal set-ups worked out on paper. These case farm set-ups illustrate the experience and judgments of research workers and farmers. They are widely used in the West in publications and for discussion and field work with individuals and groups concerned with the particular problem situation of which the example farm set-up is representative. This device needs to be used more in work with farmers; in the training of extension workers; and as an introductory approach to individual farm planning. Assistance from research is needed to improve selection of typical farm set-ups.

Such set-ups must, of course, be selected and discussed with some standards of income in mind. Both typical commercial family farm and minimum desirable family farm income situations might be considered. Home economists might supply basic family living data.

Enterprise efficiency.-- The use in an educational way of basic economic information on input-output relationships and the development of requirements and standards. Here the primary focus is upon a single enterprise, but account must be taken of how the enterprise fits into a balanced system of farming. Enterprise work is very significant in a number of specialty areas. Work on enterprise efficiency is important, for technology has changed rapidly, farmers need new information, and enterprise work offers fine opportunities for cooperation between production specialists and economists.

Farm organization and management planning, including conservation.-- Basic information and techniques for doing such farm planning jobs as choosing crop and livestock combinations in view of conservation needs, planning farmstead and field lay-outs, developing work plans for use of labor and equipment, working out livestock-feed balances, increasing efficiency within enterprises, and the making of major adjustments in size of business. The utilization of outlook information, the keeping of necessary financial and production records, and the use of satisfactory income objectives consistent with good land use and maintenance of farm resources are all included. Special attention to problems of risk arising from climatic and other hazards.

There are a good many examples of work with farmers and ranchers on individual farm planning jobs. This work has been steadily expanding. Work on the planning of farming operations as a whole, as part of individual farm and home planning, is newer. Western States have been well supplied with materials and information on this subject from all over the Nation. Several are now developing materials and techniques adapted to their conditions. All are interested in current experience elsewhere in the West and in the East.

Financial and business management planning.-- This line of work may of course be carried on in conjunction with farm organization and management planning. It includes planning for the wise use of income, savings, and credit and for sound and efficient business practices regarding insurance, wills, and other contracts. The financial aspects of risk and risk bearing are especially important in many western areas. So far, with a few exceptions, not much specific attention has been devoted to this line of work. So far, the most information on experience in this field has been obtained from Eastern States.

Utilization of farm labor.-- Basic information on unit labor requirements, use of the farm work plan, farm work simplification, and the training of farm workers.

This line of work is given individual emphasis because of Extension's special Nation-wide responsibilities in the field of farm labor and because of the great amount of work done in western areas on these subjects. In the future special effort should be made to relate labor utilization work to developments in utilization of farm power, new types of machinery, and other technology.

Useful records, and aids to farm planning.-- All States in the West have developed general farm record books for use of farmers and ranchers. Many have special farm business analysis and enterprise analysis forms.

All are supplied with material from other States and with illustrative materials developed at the Federal level. Planning forms and other aids are receiving increased attention. Special problems occur in connection with these materials for specialty crop farms and ranch outfits.

#### Guidance to Young People and Others Seeking Farming Opportunities

The West is comparatively new country, and people move about a great deal. Every year thousands of older farm youth turn their thoughts to what farming has to offer. Many other people, both young and old, look to western areas for opportunities on land. They all need accurate information and counsel before making decisions and financial commitments.

All Western States are doing considerable work in this field. Recently guidance assistance to veterans and settlers on new irrigation projects has been stressed, particularly in the Pacific Northwest, the Northern Great Plains, and the Southwest. Now the possibilities for expanding this work to take particular account of young farmers' needs might well be explored. Five lines of activity are listed below.

Farming as a business and as a way of life.-- This is the agricultural part of vocational guidance information.

Types of opportunities in western areas.-- This is an over-all picture of opportunities in established farming areas and in new land areas. Information on land and water resources, types of farming and income to be expected, public facilities, and market outlets needs to be as specific as possible. The States and the Department have done much work on this. Wide educational use has been made of regional and State materials.

Types of persons seeking opportunities in western agriculture.-- There are needed good estimates on the number of young farm people and others who are likely to require guidance. Work to date on this is probably inadequate.

The selection of a farm.-- This involves guidance in comparing locations, including those in other States. It also involves the use of outlook information and the consultation services of public agencies, consideration of buying versus renting, and ways for appraising and evaluating individual farms as to size, productivity, adaptability to desired type of farming, and social aspects.

Getting started farming.-- This involves information and guidance on sources of credit and satisfactory types of credit arrangements, types of tenure such as father-son agreements, good employer-employee arrangements, equitable lease arrangements, and contracts. A farm management program suited to the new venture is especially important.

#### Agricultural Production Adjustments

This is a way of looking at the agriculture of the West by areas and for the region as a whole. In many respects this agriculture is unique. Corn and hogs are relatively unimportant, while wheat, range livestock, dairy, fruits and nuts, and vegetables are very important sources of income. Specialized farming is common, and there are a great many distinctly different type-of-farming areas. Much of the production of the region moves across State lines to the east, or westward to Pacific Coast markets.

In many areas important changes have taken place in the level and pattern of production. More are sure to follow in the postwar period. The western farmer or rancher needs timely information on developing trends not only for his own area but also for areas that compete with him. This knowledge of the production situation is essential not only to planning production adjustments but also to the development of forward-looking marketing programs.

Western agriculture is sharply differentiated on an area basis. Many agricultural production adjustment problems can best be understood in terms of area-wide situations and in terms of relationships between areas.

This has long been recognized in both research and extension. A great amount of educational work has been done in this field. More is likely to be desirable. One big problem is to find suitable subject-matter materials on an area basis. Some type-of-production areas coincide with county, irrigation district, or other units for which there are statistics. But many production areas extend across county or State lines in a pattern for which special arrangements of statistics and other subject matter have to be developed. The lines of work listed below are intended to suggest needs for subject-matter materials as well as possibilities for educational use.

Trends in crop acreages, numbers of livestock, and volume of production by areas.-- This is background information. Some is available. It is much used. It needs to be more precise.

Trends in farm technology.-- Information on developments in the use of new

types of farm power, haymaking equipment, farm and ranch transportation, sugar beet and vegetable harvesting, and the like.

Trends in adjustments, costs, and returns on farms by type, size, and location.-- This is a developing line of subject matter with special reference to research currently under way. Several range cattle, range sheep, and wheat areas are being analyzed on an interstate basis. Individual States and BAE are cooperating. The results are likely to be very useful in educational work.

Competition between areas and types of farms.-- Many State workers and farmers look at adjustments in terms of competition. This involves information on trends in type and volume of agricultural commodities moving into primary marketing channels and on changes in the competitive position of individual commodities. Areas beyond individual State lines are usually involved. Subject matter is inadequate and educational work is less than it would otherwise be.

Changes in types and amounts of production likely to result from different levels of conservation farming on existing agricultural lands, and from different levels of new land development.-- Estimates are very difficult to make. Some material has been developed and used but more information is badly needed for use in educational work.

The development of outlook materials on an area basis.-- This involves an appraisal of area production trends and possibilities in relation to regional and national production trends and possibilities and in relation to prospective market demand. Recent production adjustment studies by States and the Department have used procedures that could be adapted to this purpose.

The use of outlook information on an area basis.-- There has always been a difficult educational problem in "adapting" general outlook information to specific areas. The further development of outlook materials on an area basis will make possible more precise educational work on changes in farming that are likely to be most profitable in different farming areas and for different sizes and types of farms.

Balanced use of agricultural resources of an area for a profitable and stable type of community economy.-- This is a somewhat broader approach than the one emphasized in the several preceding topics, where changes in production are the main concern. It is a widely understood concept in the West, and most States use it as the vehicle for educational work on problems of balance such as:

Balance between agricultural population (labor force) and employment and income opportunities. Area labor requirements and in-and-out migration.

Balance between total feed supply and livestock carried.

Balance among the several major types of feed; their location and seasonality of use.

Balance between the use of land resources and their productive capacity.

Balance between type and volume of production and primary market outlets.

For high-risk areas, an improved balance from year to year in terms of moisture and feed reserves, financial reserves, and the use of insurance.

Shifts to new systems of farming.-- This is of particular importance in areas where surplus production or serious land use problems necessitate more or less drastic changes in the organization and operation of producing units. This is a difficult line of work. The need is recognized, but the volume of specific educational work on this subject is small.

#### Land Utilization and Conservation

This is a way of looking at all land resources; how they are used and how they can best be maintained.

The western landscape is characterized by great variations from area to area; by important types of noncrop use such as forest and range; and by the great importance of watersheds as irrigation water-supply areas. Problems of farm and ranch organization and management and problems of agricultural production adjustment are often closely tied in with over-all problems of land use and land management. Much research and educational work has been done in the West in the past. This slacked off during the war. Now, with shifting market demands and increased emphasis on conservation, interest in educational work is likely to increase. As in the past, many region-wide and Nation-wide materials will be needed. Three lines of subject matter work are listed below. These are very important.

Situation as to major types of use and ownership.-- Trends, shifts in major use (range land to crop land, etc.) and economic reasons for these.

Probable long-time land requirements; national and western.-- Amount and approximate costs of land development and conservation needed. Economic guides for development and conservation.

Classification of land as to desirable future use.-- Educational aspects.

#### Land Tenure

This concerns the arrangements under which men own or use land resources. In the Western States about one-fifth of the farm and ranch outfits are operated by tenants. However, of all land in farms, whether owner, part owner, or tenant operated, about two-fifths is operated under lease. Share and cash methods are both important.

In many areas where public ownership of land is important, tenure of the individual is necessarily some combination of public and private use rights. This aspect is an important factor in many forest, grazing, and irrigation water supply areas.

The problem is to develop equitable, stable land use arrangements for the many types of farming and for the many combinations of private and public uses. Education has a very important role to play in this. Six lines of subject-matter work are listed below.

Trends in the tenure status of people on farms and ranches in the West (including agricultural laborers).-- This is background type of information. Some

is available and is being used. More is needed.

Trends in tenure status of lands.-- Same comment as above. More precise information is needed by areas and by types of farming.

Landlord-tenant relations.-- Most of the educational work done in land tenure has been in this subfield. Emphasis has been placed upon improving leases. The U.S.D.A. forms have been widely distributed and discussed. Several States have developed adapted versions. Experience in Eastern States suggests possibilities for broadening this work.

Property transfers and farm ownership.-- This involves information on significant features of wills, purchase contracts, inheritance, life estates, and joint tenancy. One aspect is to understand the process whereby farmers actually acquire ownership of their land, particularly of family-sized farms. This is mostly new territory for both research and extension. It appears worth exploring.

Forms of group and public control of land resources.-- This includes control through zoning, or by cooperative grazing associations, conservation districts, and irrigation districts, as well as by full public ownership and management. These arrangements for shaping land use are very important in many western areas. Research on economics and political science aspects is inadequate. Considerable educational work has been done, for example on soil conservation districts in most States and on grazing associations in several. Opportunities for educational work are many.

Employment, income, and security opportunities for agricultural workers.-- Information on type, season, and location of work; work agreements; housing; unemployment compensation; and accident insurance.

#### Credit and Farm Finance

A wide variety of farm credit problems is found in the West. These range from the financing of large-scale commercial operations to the rehabilitation of small family farms. Types of credit range from short-term production loans for annual crops, such as wheat and certain specialty vegetables, to long-term capital loans for apple and citrus orchards. Range livestock financing differs from other types in many respects. Settlers on new lands and established farmers making drastic shifts in systems of farming each have special requirements. Problems of risk and risk bearing are of special importance in many areas.

The supply of credit is, of course, generally adequate at present. But there remains the fundamental educational problem of assisting farmers and ranchers to better understand the functions of credit and to use it wisely. Six lines of subject matter are listed below.

The balance sheet of agriculture.-- This is information on the assets and liabilities of farming on a Nation-wide basis. It is worked out annually by BAE and is regularly used by most western States. Information on a regional basis would be a useful addition.

Types and sources of credit available to farm people.-- This is information on lending agencies, Federal and other, sources of credit, principal features of

lending procedures, security requirements, terms, and so on. It has long been an educational activity in the West. It continues important.

Farm mortgages and land purchase contracts.-- General information on trends in mortgage debt, interest rate, and percentage of farms mortgaged is available and widely used. More specific information by areas is needed. More educational effort might well be devoted to features that protect both borrower and lender, such as valuation of property on normal long-time basis, flexible payments geared to income, and equitable repossession provisions.

Short-term forms of credit.-- Information on production credit, rehabilitation loans, and emergency feed and seed loans. Important educational features of financial management and farm planning can also be tied in with lending operations. Probably more of this is possible in the West.

Financing farm structures and rural housing.-- Neither materials nor educational methods are fully developed in the West.

Credit and investment needs for new farms and for facilitating shifts in systems of farming.-- This is a special category of financing for which credit sources are inadequate. These needs are so important in a number of western areas that they deserve special study and special educational effort.

Risk and risk bearing.-- This is a subject of vital importance in many western areas. Much more information is needed on the measurement of risk, possibilities for insuring on an actuarial basis, the reduction of risk, and arrangements for equitable distribution of risk costs. BAE has proposed plans for research on these subjects. Information on national crop insurance and other material from national, regional, and State sources has been made available for use in educational programs.

#### Land Values and Prices

Nothing is more vital to success in farming and to the wise use of land resources than sound valuation of land. No line of educational work is more difficult. This is especially true in the West, where several special factors influence land values and land prices. In many areas full-time farmers face growing competition for land from urban people who are interested in commercial farming or in residential or recreational use. In strictly agricultural areas poor farm land is commonly overpriced in relation to good land. In areas where public lands are important, use privileges are frequently capitalized into commensurate property prices. Almost everywhere there is great difficulty in arriving at stable estimates of what land is worth, because of fluctuating climatic factors and erratic up-and-down movements of farm production and income.

The educational problem is to select and use the best possible factual materials as a basis for understanding land values and land prices. Five lines of subject matter are listed below.

Situation and trends in the farm land market.-- This consists of information on land prices, number of farms sold, types of sellers and buyers, and methods of financing sales, by types of farms and areas. National, regional, and area reports are regularly made available.

Forces that make farm land prices and values.-- This consists of information on farm commodity prices, production and income, changes in technology, demand for farms, funds available for purchase of land, and supply of farms for sale. It also includes analyses of relationships among these forces. During the war years all Western States have made much use of these materials as well as materials describing the situation and trends. Now, increased emphasis might well be given to helping farm and ranch people better understand the forces that determine land values as distinguished from land prices.

The capitalization into land prices of benefits from such sources as grazing permits and adjustment payments.-- This is an important problem in many areas. Very little research information is available, and little if any educational work is being done. The whole subject needs exploration.

Farm land appraisal.-- Farm land value clinics or appraisal demonstrations involve intensive work with small groups, explaining the normal value concept, its basis and application. Information on successful experience in other States has been supplied the West. This appears a very desirable type of work.

A public appraisal service has been proposed. Some information materials are available and have been used. More needs to be done on this.

History of local farm land values.-- This is a line of work that might supplement other land value activities. It would call for information on long-time trends in local area yields, farm prices, farm income, and farm land prices.

Land value case histories for typical operating units provide a way of organizing this information in interesting form.

#### Facilities and Services for Rural Areas

Many western areas are sparsely populated, and schools, roads, and other facilities and services are especially inadequate. Some areas are steadily losing population. Others, like the valleys and new land areas, are gaining in population. Thus the situation varies greatly from section to section. The educational problem is to assist people living in rural areas in understanding the economic basis for adequate, well-maintained facilities and services. Before the war considerable educational work was done on this problem. The work has slackened off, but the need continues. Subject matter falls into two main lines.

School and medical care facilities and services.-- Many aspects of school and medical care problems are not economic in nature. The school and medical care people themselves develop information on trends in the availability of adequate type facilities and services and make estimates of needs for additional or reorganized facilities and services in western areas. From this point on, the following types of economic information are needed:

The relation of existing and needed facilities to trends in type of farming, farm income, and land use.

Methods of financing and business management for facilities and services.

Criteria for investment of public funds in needed improvements to economically establish adequate levels of services (in terms of estimated needs).

Insofar as possible scale and location of such improvements should be in harmony with desirable long-time trends in type of farming, land use, and farm income.

All-weather roads and electric lines.-- These are somewhat different from school and medical care facilities. They are somewhat less closely linked to human needs. Roads, especially highways, are powerful factors affecting land use. Types of information used in educational work include:

Inventory of existing facilities.

Relationship of these facilities to trends in type of farming, farm income, and land use.

Type of farming, farm income, and land use criteria for further development.

#### The Supply and Demand Situation, and Outlook for Western Agricultural Products

Eight fields of work in the economics of agricultural production and land use are outlined above. In all of these the focus of attention is upon the use and conservation of resources in the processes of production and upon the tenure, credit, public facility, and other man-made arrangements that shape the use of resources.

Many lines of educational work outlined above involve or are related to changes in agricultural production. In order that such educational work may emphasize things within the limits of practicality it is necessary to have as accurate an estimate as possible of the economic consequences of these changes in terms of their effect upon demand, supply, and the income position of farm and ranch people.

If changes in production in a particular area are to mean greater efficiency in the use of resources they must be appraised and understood in relation to the particular demand for, the need for, and the utilization of the commodities involved. They must at the same time be appraised and understood in relation to the particular total supply of which the changed production is a part.

Some supply and demand factors operate over the entire West. A great many operate in some special way in relation to a particular commodity or a particular area.

On the supply side the outstanding fact in recent western agricultural history has been the greatly increased output from an only moderately expanded acreage<sup>1</sup>. This has been largely due to shifts to more intensive lines of agricultural production, to mechanization, and to increased yields for some crops.

On the demand side one outstanding fact has been the dependence upon markets outside the region, mostly in the East but also export. Another has been the rapid growth of western population, particularly in California, and the slow

1/ The material in this and the next three paragraphs is adapted from a report by BAE, Longterm Outlook for Western Agriculture, by Marion Clawson and Wendell Calhoun.

shift of western economy from one based on raw materials to one based on raw materials plus trade and manufacture.

Much of western agricultural output consists of specialty crops not grown elsewhere in the United States or grown only in limited volume elsewhere. For these, western production far exceeds western consumption. These commodities are sold primarily on the national market mainly in the Midwest and East. Transportation costs are a big factor.

A part of western agricultural output consists of common agricultural commodities grown in many parts of the United States as well as in the West. Some of these, such as hogs, are "deficit" commodities in that western production is clearly less than western consumption. Others, such as potatoes and apples, are "surplus" commodities in that western production clearly exceeds western consumption. A third group such as dairy products can be called "self-sufficient" commodities, because western production and western consumption are approximately in balance.

From the foregoing it is obvious that there are a great many combinations of "supply and demand" forces for which information is needed, depending upon the commodity and the area involved. Producing areas differ greatly in commodities turned out and in possibilities for shifting to other types of production. They also differ greatly as to the way in which prices and producers' incomes are affected by changes in type and volume of agricultural production.

Thus, for each western commodity and, where necessary for each western area, there is needed clear factual information on the supply and demand situation that will provide a frame of reference within which educational work in production economics and land use can be carried on.

The problem then is one of obtaining and using such factual information not only on national but also on all regional and producing-area supply-and-demand forces that must be taken into account. All States carry on work in this field. A great amount of national situation material is made available and is used. Regional and area material is less fully developed and would be more generally used if available. At least four lines of information are important.

Trends in the prices of agricultural commodities important in the West. -- Prices received for products sold, prices paid for production goods and services, and relation of these to income.

Factors affecting the prices of individual commodities or groups of commodities. -- Supply factors and the effect of price changes upon supply. Demand factors and the effect of price changes upon consumption.

General economic conditions that affect the demand for and the supply of agricultural products -- national and regional. -- National income as an over-all measure. Changes in the general price level and the status of monetary and fiscal affairs. The size and character of the labor force, national and regional, its employment, productivity, and income. The capacity of the industrial plant, national and regional, its utilization, efficiency, and use of income. The level, composition, and terms of foreign trade.

The economic position of the western farmer in the national economy.-- Comparison of the incomes of farm and nonfarm people. The income position of producers in relation to parity and alternatives to parity important in the West.

#### PROCEDURE AND COOPERATION

This program of work, the scope and content of which is outlined above, is a part of the program of the Agricultural Economics Section of the Extension Service of the U. S. Department of Agriculture. It is carried out through a set of correlated procedures that involve cooperation with many extension, research, and other professional agricultural workers. The several subject-matter fields and lines of work are periodically appraised as to their relative importance. Subject-matter materials are selected, interpreted, and prepared for field use. Related materials on educational methods are selected, prepared, and explained. Other workers are trained in subject matter and in the educational techniques for teaching it. Work is done with State and Federal groups in analyzing agricultural problems and the educational needs of farm and ranch people, in formulating and carrying out educational programs, and in appraising results of such programs.

The outline below, like the outline of fields and lines of work, is in skeleton form. In many respects it is rough and incomplete, but it does mark out the main lines of procedure. For analysis these are discussed separately, but in the actual process of carrying out the program they are interwoven at many points.

#### The Selection of Fields and Lines of Work

The periodical appraisal of the several fields and lines of subject-matter work as to their relative importance.-- Rigid analysis and priority rating of lines of work is an essential first step in organizing the program. Manpower is not available for intensive work in all lines. Criteria used include the relative importance of particular agricultural problems in individual areas or in the region as a whole, the availability of usable research information, Extension's specific legal responsibilities, and the specific subject-matter interests of the States and the Department. Since agricultural problems are dynamic and since educational work must anticipate and adjust to change, occasional reappraisal and realignment of emphasis is necessary.

This analysis and rating of lines of subject-matter work must, of course, be tied in with other lines of procedure, such as liaison contacts with research agencies and work with State and Federal extension workers. In trying to classify lines of work for primary and secondary emphasis a real dilemma is encountered because of the great diversity of lines of work under way in the region and because of the wide range of combined State and Department subject-matter interests.

The distribution of time and effort among fields and lines of subject-matter work according to their relative importance.-- This distribution is based upon the classification already discussed. To illustrate, such work as that on risk bearing or that on the capitalization of benefit payments into land values does not yet take much time, since there is still not much research information available. On the other hand individual farm organization and management planning, outlook, guidance to young people selecting farms, production adjustments by areas, and improvement of lease arrangements all take considerable time, since

these are important lines of work and since considerable material is available. A number of lines of work, such as information on the balance sheet of agriculture and information on trends in the utilization of land resources, are for general background use and require little time to handle.

Usually the selection and preparation of information on educational methods is undertaken in connection with specific fields and lines of subject matter. Time and effort are usually distributed among lines in approximately the same proportion as on subject matter itself.

#### Sources of Subject Matter

Major sources of materials on subject matter and educational methods.-- Individual States in the West are a major source of subject matter on western agriculture and of information on adapted educational methods.

Interstate and regional groups in the West, such as the Western Farm Economics Association and the Great Plains Council, are sources of area and region-wide materials. Both individual State and regional materials are obtained through personal contacts in the West, participation in conferences, and by analysis of research and extension reports.

Individual States and interstate and regional groups elsewhere in the country are a source of many materials. For example, several Midwestern States are a source of information on individual farm management and planning, the Lake States on land utilization and settler guidance, the North Central and other regional committees on land tenure, and the Midwestern and Southeastern States on farm conservation planning.

Materials from these sources are obtained through economics specialists in the Economics Section of the Federal Extension Service who work with States and regional groups in other parts of the country. Their personal knowledge of these materials is of great assistance in selecting those pertinent to the West. Materials from Western States and western groups are in turn called to their attention, so that there results a "clearing house" exchange of most recent subject-matter materials from all over the Nation.

The Bureau of Agricultural Economics is the direct source of basic material for the regional and national aspects of many lines of educational work. Much of this material originates as an important part of the product of cooperative research work carried on by the Bureau and the States. Since so much material is the joint product of Federal and State effort it is difficult (and unnecessary for our purpose here) to exactly measure the BAE's contribution. However, it is safe to say that for the 47 lines of subject matter listed in the section on Fields of Work the Bureau of Agricultural Economics is an important source for 30 or 35 and a contributor in some amount to several of the others.

Materials from this research and statistical bureau are obtained through regular cooperative contacts in Washington. Special contacts are maintained with Bureau personnel in Washington and in the West regarding subject matter of special importance in the West.

Other Department bureaus supply helpful information. This includes material on credit and farm financing from Farm Credit Administration and Farmers Home Administration; on farm planning from Farm Credit Administration, Farmers Home Administration, Soil Conservation Service, Agricultural Research Administration, and Production and Marketing Administration; on land utilization and conservation, from Soil Conservation Service and Forest Service; on rural facilities from Rural Electrification Administration; and on market outlets from Office of Foreign Agricultural Relations.

Certain materials from these agencies supplement those available from the Bureau of Agricultural Economics or individual States. They are obtained through regular cooperative channels and by personal contacts in Washington and in the field. Special attention is given to procuring items of significance to educational work in the West.

Other Federal agencies, such as the Bureau of Reclamation and the Bureau of Land Management, of the Department of the Interior, are sources of certain materials of special importance in western areas. These are obtained or arranged for through the Office of the Secretary of Agriculture and by informal contact in the field.

The Tennessee Valley Authority is a source of materials useful in test demonstration and farm planning.

Federal extension specialists in other subject-matter fields and in educational methods supply many types of very helpful information. This includes information on farm family living, production technology, and soil and water management that is necessary in carrying on educational work in farm management and related fields. It also includes specialized material on educational techniques, such as the preparation of written materials, readability analysis, new uses of radio, improvement of speaking, training, evaluation of methods, and visual aids.

#### The Organization of Materials

The organization, for efficient use, of materials on subject matter and educational methods.-- This is a continuing process that is carried on at the same time as materials are obtained from the sources described above, and as these materials are utilized in educational programs. The whole purpose is to facilitate the efficient translation and transmission of subject matter from source into use. One mechanical detail is the maintenance of a file of reference material organized by fields and lines of subject matter by individual States and for the region as a whole. This file provides a way of systematically handling working materials. It is not for record or for permanent library use.

Special sets of up-to-date examples of State work, key reference materials, outlines, and Department releases for individual fields are brought together for use in work with States and with groups in the Department.

The actual procedural steps in organizing subject matter will vary, depending upon the subject, the character of the material, and the way in which it is to be used. Some materials are suitable for use in their original form. Others have to be summarized or briefed. Informal materials from interviews and

conferences have to be written up. Most materials are analyzed and suggestions prepared as to possible educational uses.

In a number of instances subject matter pertinent to the West can be developed as part of a body of subject matter for the country as a whole.

However, some supplementary information and special interpretation is usually desirable. For a number of subjects, locally or regionally important in the West, special types of information are necessary.

Procedure for organizing materials for use in the field must take into account the characteristics of western agriculture and western research and extension work. Geographically the region is large; it is 1,200 miles from Berkeley, Calif., to Laramie, Wyo.; 1,500 miles from Pullman, Wash., to Las Cruces, N. Mex. Interstate distances between State agricultural colleges are greater than in the East. Research and extension staffs in agricultural economics are small, and professional specialization in economics subjects has not developed to anywhere near the extent it has in the Middle West and East. Teamwork between economists and other specialists is especially important in order to multiply the effectiveness of limited manpower.

The rapid growth of western agriculture, the importance of wild-land resources, the pioneer spirit of agricultural and industrial development, the mobility of people, the fluctuations in production and income due to climate, and the necessary flexibility of educational programs must all be taken into account. This means that the process of organizing subject-matter materials must be closely related to and integrated with work in the States and with work with State and Federal groups, analyzing agricultural problems, sizing up the educational needs of farm and ranch people, formulating and carrying out educational programs, and appraising results of such programs.

#### Work with State Extension Economists and Other State Workers

Assistance to the State extension economist as he organizes his own program as a subject-matter specialist.-- This involves joint consideration of materials of national, regional, and interstate significance and consultative assistance in outlining objectives, fields and lines of work, and the main features of organization and procedure. This assistance with materials and their use is especially important for the next few years, since States are reorganizing their work, adding personnel, and outlining longer-time programs.

Assistance to the State extension economist as he keeps informed of and in touch with research and other subject matter pertinent to his work, particularly that originating outside his own State.-- The ground covered here is indicated in the foregoing discussions of fields of work and sources of material. With economic problems growing in importance and with new research under way, the problem of keeping in touch with developments is increasingly difficult.

Assistance to the State extension economist and others with subject matter and procedures for analyzing the economic aspects of production and land use problems in the State.-- As pointed out in the introductory discussion of fields of work, each State has a more or less distinct set of agricultural problems. An analysis of these, in terms of their geographic location, rate of change, the number of farms and families involved, and other factors, is essential to provide

an up-to-date basis for an educational program. Since agricultural problems are related one to another, it is assumed that the analysis of the economic aspects of production and land use problems can logically be correlated with the analysis of other aspects of agricultural problems as part of a planning and program-building process.

Western States have had a great deal of experience in analyzing agricultural problems as part of their work in "land use planning," "agricultural planning," and "extension program planning." Since western agriculture differs so sharply from area to area the States pay particular attention to distinguishing between areas in their analysis of problems and in their development of programs. Also, since many production adjustment, land use, land tenure, and other problems extend beyond the boundaries of individual farm and ranch units the States develop many community-wide, county-wide, and area-wide educational activities.

Types of subject matter, and the need for certain materials from other State, regional, and national sources are indicated in the discussion of fields of work. The emphasis upon the analysis of agricultural problems and the formulation of educational programs in a planning way is likely to continue important in the West.

Assistance to the State extension economist and others with the economic aspects of agricultural production and land use in county extension programs.-- It is assumed that work with these economic aspects constitutes a part of a well-balanced county program. It is also assumed that such work should be correlated with other lines of educational activity at each stage -- the analysis of agricultural problems, the formulation and carrying out of educational programs, and the appraisal of results. Federal assistance with these economic aspects of county extension programs is provided in two ways. One is direct, by assisting extension economists and others in their analyses of agricultural problems, and in their work of formulating, carrying out, and appraising State programs. The other is direct when, as a part of this assistance with State programs, contact is made directly with county workers. Especially important is work in individual example counties that illustrate significant problems of mutual interest to the State and to the Department, and which provide a good basis for assisting the extension economist and others with the State program. The use of carefully selected "sample" or "pilot" counties for this purpose has not so far been developed to the extent that appears desirable for the future.

Farm and home planning as part of a county extension program involves important economics subject matter and related educational methods. Procedures along the above lines provide a way of assisting with this activity. There is a growing interest in this approach to extension work in the West. One of the most challenging problems for the States is to correlate the somewhat new individual farm planning approach with the well-established community-wide and area-wide agricultural planning approach so that the two approaches harmonize with and complement each other.

Consultation with professional workers in research and resident teaching regarding research and formal training in the economics of agricultural production and land use.-- This is an informal liaison type of contact for the exchange of information and ideas on matters significant to economics extension work.

The five types of assistance to State extension leaders, outlined above, are

performed by conferences, individual contacts, and other work within individual States and counties; by correspondence and the supplying of subject matter throughout the year; and by contacts and work at regional and national conferences.

Individual and group contacts in the States constitute the most effective assistance. They permit keeping in touch with local agricultural conditions and changing emphases in State programs, and they facilitate cooperative work in outlining objectives, fields of work, and procedures. One great need is for more time to work in the States.

Correspondence is important in following up on contacts and work in the States and in interpreting materials obtained for States from other States and from regional and national sources.

Subject-matter materials and materials on educational methods are selected or prepared in view of the needs of individual States for material to supplement that otherwise available to them. Special attention is given to supplying them with materials from other States and from the Department. This works quite satisfactorily, except that there is not enough time available to brief or summarize some of the more technical items of material for most efficient use.

Conferences such as the Western States Regional Extension Conference and the National Outlook Conference provide opportunities for work particularly on regional and national subjects. There is need for additional opportunities for western extension economists to work with each other and with research workers in economics in the region.

#### Work with the BAE and Other Federal Agencies

Liaison contacts with the Bureau of Agricultural Economics and other research bureaus in the Department regarding research information and its utilization in educational programs.-- As stated earlier, the BAE is a direct source of subject matter on the regional and national aspects of many lines of work. There are two objectives in maintaining a close working contact with this Bureau. One is to keep in touch with research and statistical work under way in order to make use of new subject-matter materials as soon as they are available. The other is to consult with research workers regarding agricultural problems on which research information is needed as a basis for educational work. Contacts are maintained through joint Extension Service and BAE conferences and committees and by frequent consultation with individual research economists working on farm management, production adjustment, land use, farm income, market outlook, and other agricultural problems significant in the West.

Contacts are maintained in similar manner with certain other research in the Department, as for example, the farm land value and economic land classification work of the Farm Credit Administration and the productivity index work of the Division of Soil Survey of the Bureau of Plant Industry, Soils, and Agricultural Engineering.

Work with Department of Agriculture bureaus on educational activities that are of mutual interest to the Department and the Western States.-- This is work with interbureau and Department-wide groups that brings subject matter together for use

in cooperative educational programs. Examples are the Department-wide assembly of materials on the farm land market and farm land values, the assembly of national and regional information for States to use in providing guidance to persons seeking farming opportunities, and the assembly of economic background materials for use in the States and for the region in analyzing production trends and possible adjustments. Subject-matter problems and subject-matter needs are called to the attention of these groups. These problems are taken into account in the preparation of material. As with research, close contact with these groups makes it possible to know of and make use of subject-matter materials as soon as they are available.

#### Work with Other Federal Extension Service Workers

Assistance with Federal office activities regarding extension work in the West.-- State plans of work in farm management and related fields are reviewed as to subject matter and educational techniques and recommended for approval or disapproval. Annual reports of State extension economists are reviewed. Plans of work and annual reports are summarized for administrative use. These documents can be improved, but at their best they do not provide a complete basis for a program of subject-matter assistance to the States. This is partly because of the long time lag and partly because of dynamic changes in agricultural problems and extension programs. Individual and group contacts in the States and two-way correspondence throughout the year are essential as a basis for and as a supplement to the formal documents.

State extension publications on economics subjects from Western States are assembled, analyzed, commented upon, and made available to other regional specialists as well as to other States in the West. A strong effort is made to understand the background and specific purpose of each important publication. Many of these materials, along with information on their origin, are obtained through field contacts with State extension workers.

Special memoranda and outlines on western agricultural problems and related educational work are occasionally prepared for administrative use. A small file of special State and Federal agency references is maintained on such subjects as river-basin development, irrigation development, and public-land administration. Some information is maintained on changes in western population, trade, and manufacture. More systematic attention to assembling and interpreting materials on the major agricultural and nonagricultural features of western economy would give a more precise West-wide background for educational work.

Other Federal Extension Service workers are advised with, regarding the relation between work in farm management and related fields and work in other fields of subject matter. Special attention is given to types of economics subject matter, and related educational methods needed as part of the basis for developing State and county programs of extension work. In this connection the processes of community and area land use and agricultural planning, so well known in the West, and the process of individual farm and home planning both offer many opportunities for cooperation among subject-matter specialists as part of a larger cooperative effort among all extension workers to better assist farm and ranch people with their own educational effort.